

REMARKS

Applicants acknowledge receipt of the Office Action mailed May 17, 2011.

In the Office Action¹, the Examiner rejected claims 31-34, 38-45, 49, 54-65, and 68-72 under 35 U.S.C. § 103(a) as being unpatentable over *Paonessa et al.* ("*Paonessa*") (U.S. Patent No. 5,871,602) in view of *Okamoto et al.* ("*Okamoto*") (U.S. Patent No. 5,287,691); rejected claims 31-37, 39-48, 54-65, and 69-72 under 35 U.S.C. § 103(a) as being unpatentable over *Paonessa* in view of *Mizuma* (JP Patent No. 11-241282); rejected claims 31-34, 38-45, 49, 51, 54-65, 68, and 70-72 under 35 U.S.C. § 103(a) as being unpatentable over *Pneumatiques* (GB 1,091,507) in view of *Okamoto*, and further in view of *Saeki* (JP 2000-335209); and rejected claims 31-37, 39-48, 51, 54-65, and 70-72 under 35 U.S.C. § 103(a) as being unpatentable over *Pneumatiques* in view of *Mizuma*, and further in view of *Saeki*.

In this Amendment, Applicants amend claims 31, 69, and 70, and cancel claim 71, without prejudice or disclaimer. Upon entry of this Amendment, claims 31-49, 51, 54-65, 68-70, and 72 will remain pending. Of these claims, claims 31, 69, and 70 are independent.

The originally-filed specification, claims, abstract, and drawings fully support the amendments to claims 31, 69, and 70. No new matter has been introduced.

Based on the foregoing amendments, Applicants traverse the rejections above and respectfully request reconsideration for at least the reasons that follow.

¹ The Office Action contains characterizations of the claims and the related art with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

I. 35 U.S.C. § 103(a) REJECTIONS

Applicants traverse the rejection of claims 31-34, 38-45, 49, 54-65, and 68-72 under 35 U.S.C. § 103(a) as being unpatentable over *Paonessa* in view of *Okamoto*. Applicants respectfully disagree with the Examiner's arguments and conclusions and submit that amended independent claims 31, 69, and 70 patentably distinguish over *Paonessa* and *Okamoto* at least for the reasons described below. Applicants further submit that the rejection of claim 71 has been rendered moot by the cancellation of that claim.

The key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. See M.P.E.P. § 2142, 8th Ed., Rev. 7 (July 2008). Such an analysis should be made explicit and cannot be premised upon mere conclusory statements. See *id.* "A conclusion of obviousness requires that the reference(s) relied upon be enabling in that it put the public in possession of the claimed invention." M.P.E.P. § 2145. Furthermore, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" at the time the invention was made. M.P.E.P. § 2143.01(III), internal citation omitted. Moreover, "[i]n determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious." M.P.E.P. § 2141.02(I), internal citations omitted (emphasis in original).

“[T]he framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). . . . The factual inquiries . . . [include determining the scope and content of the prior art and] . . . [a]scertaining the differences between the claimed invention and the prior art.” M.P.E.P. § 2141(II). “Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art.” M.P.E.P. § 2141(III).

Amended independent claim 31, and similarly amended independent claim 69, recite a high or very high performance pneumatic tyre, comprising: “at least one flipper; . . . wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm” (emphases added).

Amended independent claim 70 recites a high or very high performance pneumatic tyre, comprising: “at least one flipper; . . . and a chafer; . . . wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter

greater than or equal to 0.05 mm and less than or equal to 0.20 mm, [and] wherein the chafer is disposed between two carcass plies" (emphases added).

Paonessa discloses a pneumatic tire including a pair of sidewall portions, a pair of bead regions and a carcass reinforced with at least two sidewall fillers or inserts for each sidewall portion and at least one cord reinforced ply and two bead cores one in each bead region and a reinforcing belt structure. This tire is preferably a runflat radial ply tire. The at least one cord reinforced ply has a pair of turnup ends wrapped around the pair of bead cores. The turnup ends each extend radially outwardly to a terminal end located under the reinforcing belt structure. The first insert for each sidewall portion lies radially inward and adjacent the at least one ply. The second insert for each sidewall portion is radially between the at least one ply and its turnup end. (*Paonessa*, Abstract).

As admitted by the Examiner, "Paonessa fails to expressly suggest a cord having at least one preformed element." (*Office Action*, p. 2, para. 3). *Paonessa* also fails to teach or suggest "wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm" (emphases added). Furthermore, *Paonessa* does not disclose "wherein the chafer is disposed between two carcass plies" (emphases added).

The Examiner asserts that “[a]s best depicted in Figure 8, Paonessa teaches a pneumatic tire construction including a pair of annular reinforcing elements 26 . . . , a pair of bead fillers 2[2], [and] at least one flipper 70.” (*Office Action*, p. 2, para. 3). The flipper 70, however, fails to completely envelop the bead core 26, which the Examiner equates to the claimed “annular reinforcing element” and the bead region 22, which the Examiner equates to the claimed “bead filler.” Rather, the ends of the flipper 70 are open-ended.

Further, the Examiner asserts that “reinforcing lay[er] 62 can be viewed as the claimed ‘chafer.’ . . . [T]he ‘chafer’ of Paonessa is disposed between two carcass plies in as much as Figure 4 depicts such an arrangement.” (*Office Action*, p. 5, ll. 6-9). Applicants respectfully disagree. As illustrated in FIG. 8 of *Paonessa*, the fabric reinforced member 61 includes first and second ends 62 and 63, respectively. The first end 62 of the reinforced member 61, which the Examiner equates to the claimed “chafer,” is not disposed between two carcass plies since the reinforced member 61 is the outermost layer of the rubber chafer portion 60.

In order to cure the deficiencies of *Paonessa*, the Examiner relies on *Okamoto* and alleges “a metallic cord is recognized as providing improved corrosion resistance and fatigue resistance . . . Okamoto broadly teaches the use of such a metallic cord in tire constructions.” (*Office Action*, p. 2, line 22 - p. 3, line 3).

Okamoto, for example, appears to disclose a metal cord formed by twisting two spirally pre-shaped metal filaments together with a twisting pitch P. The metal filament has not only the spiral shape formed by twisting, but retains so much of its spiral preshape as to have a pitch p equal to 0.20-0.50 times the twisting pitch and a diametric

height h of 0.05-0.25 mm. (*Okamoto*, Abstract). Such teaching, even if present in *Okamoto*, which Applicants do not necessarily concede, however, does not constitute or suggest at least “wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements” (emphases added), as recited in amended independent claim 31, and similarly amended independent claims 69 and 70. In fact, *Okamoto* teaches away from using cords with more than two metallic elements. (*Okamoto*, col. 1, ll. 41-49, col. 2, ll. 18-24, col. 3, line 67 - col. 4, line 9, and col. 4, ll. 18-26). Furthermore, *Okamoto* fails to teach or suggest “wherein the chafer is disposed between two carcass plies” (emphases added).

As explained above, the elements of amended independent claims 31, 69, and 70 are neither taught nor suggested by the cited references. Consequently, the Office Action has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the prior art and the claim. Accordingly, no reason has been clearly articulated as to why the claim would have been obvious to one of ordinary skill in view of the prior art. Therefore, a *prima facie* case of obviousness has not been established for independent claims 31, 69, and 70.

Claims 31, 69, and 70, and claims 32-34, 38-45, 49, 54-65, 68, and 72 which depend from claim 31, are patentable over *Paonessa* and *Okamoto*. Applicants therefore request that the rejection of claims 31-34, 38-45, 49, 54-65, and 68-72 under 35 U.S.C. § 103(a) be withdrawn.

Applicants traverse the rejection of claims 31-37, 39-48, 54-65, and 69-72 under 35 U.S.C. § 103(a) as being unpatentable over *Paonessa* in view of *Mizuma*.

Applicants respectfully disagree with the Examiner's arguments and conclusions and submit that amended independent claims 31, 69, and 70 patentably distinguish over *Paonessa* and *Mizuma* at least for the reasons described below. Applicants further submit that the rejection of claim 71 has been rendered moot by the cancellation of that claim.

Amended independent claim 31, and similarly amended independent claim 69, recite a high or very high performance pneumatic tyre, comprising: "at least one flipper; . . . wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm" (emphases added).

Amended independent claim 70 recites a high or very high performance pneumatic tyre, comprising: "at least one flipper; . . . and a chafer; . . . wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter

greater than or equal to 0.05 mm and less than or equal to 0.20 mm, [and] wherein the chafer is disposed between two carcass plies" (emphases added).

As discussed above, *Paonessa* discloses a pneumatic tire including a pair of sidewall portions, a pair of bead regions and a carcass reinforced with at least two sidewall fillers or inserts for each sidewall portion and at least one cord reinforced ply and two bead cores one in each bead region and a reinforcing belt structure. This tire is preferably a runflat radial ply tire. The at least one cord reinforced ply has a pair of turnup ends wrapped around the pair of bead cores. The turnup ends each extend radially outwardly to a terminal end located under the reinforcing belt structure. The first insert for each sidewall portion lies radially inward and adjacent the at least one ply. The second insert for each sidewall portion is radially between the at least one ply and its turnup end. (*Paonessa*, Abstract).

As admitted by the Examiner, "Paonessa fails to expressly suggest a cord having at least one preformed element." (*Office Action*, pp. 5-6, para. 4). *Paonessa* also fails to teach or suggest "wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm" (emphases added). Furthermore, *Paonessa* does not disclose "wherein the chafer is disposed between two carcass plies" (emphases added).

The Examiner asserts that “Paonessa teaches a pneumatic tire construction including a pair of annular reinforcing elements 26 . . . , a pair of bead fillers 22, [and] at least one flipper 70.” (*Office Action*, p. 5, para. 4). The flipper 70, however, fails to completely envelop the bead core 26, which the Examiner equates to the claimed “annular reinforcing element” and the bead region 22, which the Examiner equates to the claimed “bead filler.” Rather, the ends of the flipper 70 are open-ended.

Further, the Examiner asserts that “reinforcing lay[er] 62 can be viewed as the claimed ‘chafer.’ . . . [T]he ‘chafer’ of Paonessa is disposed between two carcass plies in as much as Figure 4 depicts such an arrangement.” (*Office Action*, p. 8, ll. 4-6). Applicants respectfully disagree. As illustrated in FIG. 8 of *Paonessa*, the fabric reinforced member 61 includes first and second ends 62 and 63, respectively. The first end 62 of the reinforced member 61, which the Examiner equates to the claimed “chafer,” is not disposed between two carcass plies since the reinforced member 61 is the outermost layer of the rubber chafer portion 60.

In order to cure the deficiencies of *Paonessa*, the Examiner relies on *Mizuma* and alleges “a metallic cord is recognized as providing high durability, as shown for example by Mizuma . . . Mizuma broadly teaches the use of such a metallic cord in tire constructions.” (*Office Action*, p. 6, ll. 1-3).

Mizuma, for example, discloses a steel cord including a single wire or twisted wires, which preferably comprise flat high tension steel wires having a carbon content of 0.07-1.00 wt.%. At least one of the wires does not have a straight line portion on a flat surface and only includes smooth, continuous curved portions, and is shaped in a two-dimensional wave form having a wave pitch of 2-10 mm and a wave height of 0.02-10

mm. The steel cords are embedded in a rubber molded product in the form of belt plies or carcass plies in steel radial tires. (*Mizuma*, Abstract). Such teaching, even if present in *Mizuma*, which Applicants do not necessarily concede, however, does not constitute or suggest at least wherein “each of the metallic elements ha[s] a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm” (emphases added), as recited in amended independent claim 31, and similarly amended independent claims 69 and 70. Rather, *Mizuma* only discloses cords with filaments having diameters greater than or equal to 0.25 mm. (*Mizuma*, Tables 1 and 2). Furthermore, *Mizuma* fails to teach or suggest “wherein the chafer is disposed between two carcass plies” (emphases added).

As explained above, the elements of independent claims 31, 69, and 70 are neither taught nor suggested by the cited references. Consequently, the Action has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the prior art and the claim. Accordingly, no reason has been clearly articulated as to why the claim would have been obvious to one of ordinary skill in view of the prior art. Therefore, a *prima facie* case of obviousness has not been established for independent claims 31, 69, and 70. Claims 31, 69, and 70, and claims 32-37, 39-48, 54-65, and 72 which depend from independent claim 31, are patentable over *Paonessa* and *Mizuma*. Applicants therefore request that the rejection of claims 31-37, 39-48, 54-65, and 69-72 under 35 U.S.C. § 103(a) be withdrawn.

Applicants traverse the rejection of claims 31-34, 38-45, 49, 51, 54-65, 68, and 70-72 under 35 U.S.C. § 103(a) as being unpatentable over *Pneumatiques* in view of *Okamoto*, and further in view of *Saeki*. Applicants respectfully disagree with the

Examiner's arguments and conclusions and submit that amended independent claims 31 and 70 patentably distinguish over *Pneumatiques*, *Okamoto*, and *Saeki* at least for the reasons described below. Applicants further submit that the rejection of claim 71 has been rendered moot by the cancellation of that claim.

Amended independent claim 31, and similarly amended independent claim 70, recites a high or very high performance pneumatic tyre, comprising: "at least one flipper; . . . wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm" (emphases added).

Pneumatiques discloses that "[t]he present invention is especially suitable for giant tyres such as truck tyres." (*Pneumatiques*, p. 1, ll. 40-41). *Pneumatiques* further appears to disclose a pneumatic tire including a bead with a single inextensible reinforcing bead wire 10 surmounted by a rubber filler 11, the assembly being partially enclosed by a flipper 12 constituted by parallel cords, cables or wires, preferably metal wires, embedded in a calendered layer of rubber mixture. (*Id.* at p. 2, ll. 35-41). In the bead region, the carcass plies are divided into two equal or unequal groups, one of which, group 13, extends down the axially inner side of the filler 11 and is turned up outwardly about the wire 10 and back on itself along the axially outer side of the flipper 12. The other group of plies, group 14, extends radially inwardly in contact with

stepped edges of the plies 13 and extends to the toe 15 of the bead. Located on the outside of the external group 14 of carcass plies are two flat stiffening strips 16. (*Id.* at p. 2, ll. 47-64).

As admitted by the Examiner, “*Pneumatiques* fails to expressly suggest a cord having at least one preformed element.” (*Office Action*, p. 8, para. 5). The Examiner also admits that “*Pneumatiques* is broadly directed to truck tires . . . the reference is silent with respect to the aspect ratio.” (*Id.* at p. 9, ll. 12-14). Furthermore, *Pneumatiques* fails to teach or suggest at least “wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm” (emphases added), as recited in amended independent claim 31, and similarly amended independent claim 70.

The Examiner asserts that “*Pneumatiques* teaches a pneumatic tire construction including a pair of annular reinforcing elements 10 . . . , a pair of bead fillers 11, [and] at least one flipper 12.” (*Office Action*, p. 8, para. 5). The flipper 12, however, fails to completely envelop the bead wire 10, which the Examiner equates to the claimed “annular reinforcing element” and the rubber filler 11, which the Examiner equates to the claimed “bead filler.” Rather, the ends of the flipper 12 are open-ended.

In order to cure the deficiencies of *Pneumatiques*, the Examiner relies on *Okamoto* and alleges “a metallic cord is recognized as providing improved corrosion

resistance and fatigue resistance . . . Okamoto broadly teaches the use of such a metallic cord in tire constructions.” (*Office Action*, pp. 8-9, para. 5).

Okamoto, for example, appears to disclose a metal cord formed by twisting two spirally pre-shaped metal filaments together with a twisting pitch P . The metal filament has not only the spiral shape formed by twisting, but retains so much of its spiral preshape as to have a pitch p equal to 0.20-0.50 times the twisting pitch and a diametric height h of 0.05-0.25 mm. (*Okamoto*, Abstract). Such teaching, even if present in *Okamoto*, which Applicants do not necessarily concede, however, does not constitute or suggest at least “wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements” (emphases added), as recited in amended independent claim 31, and similarly amended independent claim 70. In fact, *Okamoto* teaches away from using cords with more than two metallic elements. (*Okamoto*, col. 1, ll. 41-49, col. 2, ll. 18-24, col. 3, line 67 - col. 4, line 9, and col. 4, ll. 18-26).

The Examiner further relies on *Saeki* to cure the deficiencies of *Pneumatiques* and *Okamoto* discussed above. The Examiner asserts that “the claimed values [of the aspect ratio] are consistent with those used to form truck tires, as shown for example by *Saeki* (Abstract). In this instance, the disclosed range of less than 0.60 fully encompasses the claimed range between 0.25 and 0.45.” (*Office Action*, p. 9, ll. 14-16). Such teaching, even if present in *Saeki*, which Applicants do not necessarily concede, however, does not constitute or suggest at least “wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first

elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm" (emphases added), as recited in amended independent claim 31, and similarly amended independent claim 70.

As explained above, the elements of independent claims 31 and 70 are neither taught nor suggested by the cited references. Consequently, the Office Action has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the prior art and the claim. Accordingly, no reason has been clearly articulated as to why the claim would have been obvious to one of ordinary skill in view of the prior art. Therefore, a *prima facie* case of obviousness has not been established for independent claims 31 and 70. Claims 31 and 70, and claims 32-34, 38-45, 49, 51, 54-65, 68, and 72 which depend from independent claim 31, are patentable over *Pneumatiques*, *Okamoto*, and *Saeki*. Applicants therefore request that the rejection of claims 31-34, 38-45, 49, 51, 54-65, 68, and 70-72 under 35 U.S.C. § 103(a) be withdrawn.

Applicants traverse the rejection of claims 31-37, 39-48, 51, 54-65, and 70-72 under 35 U.S.C. § 103(a) as being unpatentable over *Pneumatiques* in view of *Mizuma*, and further in view of *Saeki*. Applicants respectfully disagree with the Examiner's arguments and conclusions and submit that amended independent claims 31 and 70 patentably distinguish over *Pneumatiques*, *Mizuma*, and *Saeki* at least for the reasons

described below. Applicants further submit that the rejection of claim 71 has been rendered moot by the cancellation of that claim.

Amended independent claim 31, and similarly amended independent claim 70, recites a high or very high performance pneumatic tyre, comprising: “at least one flipper; . . . wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm” (emphases added).

As discussed above, *Pneumatiques* discloses that “[t]he present invention is especially suitable for giant tyres such as truck tyres.” (*Pneumatiques*, p. 1, ll. 40-41). *Pneumatiques* further appears to disclose a pneumatic tire including a bead with a single inextensible reinforcing bead wire 10 surmounted by a rubber filler 11, the assembly being partially enclosed by a flipper 12 constituted by parallel cords, cables or wires, preferably metal wires, embedded in a calendered layer of rubber mixture. (*Id.* at p. 2, ll. 35-41). In the bead region, the carcass plies are divided into two equal or unequal groups, one of which, group 13, extends down the axially inner side of the filler 11 and is turned up outwardly about the wire 10 and back on itself along the axially outer side of the flipper 12. The other group of plies, group 14, extends radially inwardly in contact with stepped edges of the plies 13 and extends to the toe 15 of the bead.

Located on the outside of the external group 14 of carcass plies are two flat stiffening strips 16. (*Id.* at p. 2, ll. 47-64).

As admitted by the Examiner, “Pneumatiques fails to expressly suggest a cord having at least one preformed element.” (*Office Action*, p. 12, ll. 3-4). The Examiner also admits that “Pneumatiques is broadly directed to truck tires . . . the reference is silent with respect to the aspect ratio.” (*Id.* at p. 12, ll. 16-18). Furthermore, *Pneumatiques* fails to teach or suggest at least a high or very high performance pneumatic tyre, comprising: “at least one flipper; . . . wherein the at least one flipper is in contact with an associated annular reinforcing element and completely envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm” (emphases added), as recited in amended independent claim 31, and similarly amended independent claim 70.

The Examiner asserts that “Pneumatiques teaches a pneumatic tire construction including a pair of annular reinforcing elements 10 . . . , a pair of bead fillers 11, [and] at least one flipper 12.” (*Office Action*, p. 11, para. 6). The flipper 12, however, fails to completely envelop the bead wire 10, which the Examiner equates to the claimed “annular reinforcing element” and the rubber filler 11, which the Examiner equates to the claimed “bead filler.” Rather, the ends of the flipper 12 are open-ended.

In order to cure the deficiencies of *Pneumatiques*, the Examiner relies on *Mizuma* and alleges “a metallic cord is recognized as providing high durability, as

shown for example by Mizuma . . . Mizuma broadly teaches the use of such a metallic cord in tire constructions.” (*Office Action*, p. 12, ll. 4-6).

Mizuma, for example, discloses a steel cord including a single wire or twisted wires, which preferably comprise flat high tension steel wires having a carbon content of 0.07-1.00 wt.%. At least one of the wires does not have a straight line portion on a flat surface and only includes smooth, continuous curved portions, and is shaped in a two-dimensional wave form having a wave pitch of 2-10 mm and a wave height of 0.02-10 mm. The steel cords are embedded in a rubber molded product in the form of belt plies or carcass plies in steel radial tires. (*Mizuma*, Abstract). Such teaching, even if present in *Mizuma*, which Applicants do not necessarily concede, however, does not constitute or suggest at least wherein “each of the metallic elements ha[s] a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm” (emphases added), as recited in amended independent claim 31, and similarly amended independent claim 70. Rather, *Mizuma* only discloses cords with filaments having diameters greater than or equal to 0.25 mm. (*Mizuma*, Tables 1 and 2).

The Examiner further relies on *Saeki* to cure the deficiencies of *Pneumatiques* and *Mizuma* discussed above. The Examiner asserts that “the claimed values [of the aspect ratio] are consistent with those used to form truck tires, as shown for example by *Saeki* (Abstract). In this instance, the disclosed range of less than 0.60 fully encompasses the claimed range between 0.25 and 0.45.” (*Office Action*, p. 12, ll. 18-20). Such teaching, even if present in *Saeki*, which Applicants do not necessarily concede, however, does not constitute or suggest at least “wherein the at least one flipper is in contact with an associated annular reinforcing element and completely

envelops the associated annular reinforcing element and bead filler, . . . [and] wherein the first elongated reinforcing elements comprise greater than or equal to three metallic elements and less than or equal to five metallic elements, at least one of which is a preformed metallic element, each of the metallic elements having a diameter greater than or equal to 0.05 mm and less than or equal to 0.20 mm” (emphases added), as recited in amended independent claim 31, and similarly amended independent claim 70.

As explained above, the elements of independent claims 31 and 70 are neither taught nor suggested by the cited references. Consequently, the Office Action has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the prior art and the claim. Accordingly, no reason has been clearly articulated as to why the claim would have been obvious to one of ordinary skill in view of the prior art. Therefore, a *prima facie* case of obviousness has not been established for independent claims 31 and 70. Claims 31 and 70, and claims 32-37, 39-48, 51, 54-65, and 72 which depend from independent claim 31, are patentable over *Pneumatiques*, *Mizuma*, and *Saeki*. Applicants therefore request that the rejection of claims 31-37, 39-48, 51, 54-65, and 70-72 under 35 U.S.C. § 103(a) be withdrawn.

II. CONCLUSION

Applicants respectfully submit that claims 31-49, 51, 54-65, 68-70, and 72 are in condition for allowance.


In view of the foregoing, Applicants respectfully request reconsideration and reexamination of this application, and the timely allowance of the pending claims.

If there is any fee due in connection with the filing of this Amendment, please charge the fee to Deposit Account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: November 16, 2011

By: 
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